

PROJECT OVERVIEW

SANDAG and the North County Transit District (NCTD) are leading efforts to stabilize portions of the 1.7 miles of coastal bluffs in the City of Del Mar. This integral part of the 351-mile Los Angeles – San Diego – San Luis Obispo (LOSSAN) rail corridor is a vital link for passenger and freight movements within San Diego County, as well as between San Diego, Los Angeles, and points farther north.



PREVIOUS BLUFF STABILIZATION EFFORTS

Since 2003, SANDAG and NCTD have completed three stabilization projects along coastal bluffs between Coast Boulevard and Torrey Pines State Beach. These stabilization projects saw the installation of more than 200 support columns into the bluffs and critical investments into drainage infrastructure to help reinforce and protect the Del Mar bluffs.

CURRENT IMPROVEMENTS

Phase 4 efforts will install smaller support columns that will stabilize localized areas and sea walls, construct a drainage channel on top of the bluffs, repair concrete channels and storm chute outfalls, and stabilize existing headwalls.

FUTURE IMPROVEMENTS

SANDAG and NCTD are currently seeking \$100 million to accelerate the final two phases of stabilization projects, Del Mar Bluffs Phase 5 and 6. Phase 5 is currently funded through design and will address additional seismic and general stabilization needs, install additional support columns, and replace more aging drainage structures. Phase 6 will continue to provide long-term rehabilitation and stabilization work, including protecting the base of the bluffs against additional bluff retreat. Simultaneously, to ensure the long-term viability of the corridor, SANDAG is seeking \$5 million to evaluate alternative strategies to move the tracks completely off the bluffs.

IMPORTANCE OF THE LOSSAN RAIL LINE

The LOSSAN rail line is a vital component of the north-south corridor through the San Diego region. The NCTD COASTER commuter rail service, Amtrak's Pacific Surfliner intercity service, and BNSF Railway freight service all rely upon this segment of track to serve a combined 7.6 million passengers a year and \$1 billion in goods and services that are supported by rail line reliability. In 2019, these services relied upon 44 passenger trains and 6 freight trains. By 2030 these numbers will have increased to 78 passenger trains and 22 freight trains, only further illustrating the need for rail line reliability. SANDAG is currently commissioning an in-depth analysis of the economic impacts of LOSSAN rail corridor to the San Diego region.

PHASE 4 SCHEDULE AND FUNDING

Construction Start:

January 2020

Construction Completion:

Late 2020

Funding Sources:

Federal, State, and Local

Phase 4 Cost:

\$5.8 million

Del Mar Bluffs Stabilization Project

LOSSAN Los Angeles
San Diego
San Luis Obispo
Coastal Rail Corridor
San Diego Segment

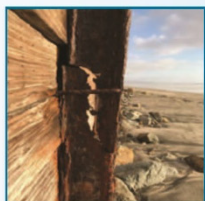
Del Mar Bluffs Past, Current, and Future Stabilization Efforts



A. Drainage Improvements



B. Support Column Installation



C. Retaining Wall Improvements

LEGEND

- █ **Completed Stabilization Efforts**
(Includes approximately 200 support columns and drainage improvements.)
- █ **Phase 4 Del Mar Bluffs Stabilization**
(Includes the installation of support columns, replacement of a drainage channel, concrete channel improvements, storm chute outfalls, and headwall stabilization)
- **Phase 4**
 - A. Drainage Improvements
 - B. Support Column Installation
 - C. Retaining Wall Improvements
- █ **Future Planned Del Mar Bluffs Stabilization**
(Includes the installation of support columns, seismic improvements, general drainage improvements, concrete lagging, and base reinforcement)
- ● ● ● **Existing Support Columns**
(Exact number of existing columns not shown)



FOR MORE INFORMATION OR TO SIGN UP FOR PROJECT UPDATES:

Visit: KeepSanDiegoMoving.com/PSI | Call: (858) 549-RAIL | TTY: (619) 699-1904 | Email: LOSSANRail@KeepSanDiegoMoving.com



sandagregion | gonctd



SANDAG | GoNCTD



SANDAGregion | GoNCTD



SANDAGregion | NCTD

